

REMARKS

The Office Action in the above-identified application has been carefully considered and this amendment has been presented to place this application in condition for allowance. Accordingly, reexamination and reconsideration of this application are respectfully requested.

Claims 1–9 are in the present application. It is submitted that these claims, as originally presented, are patentably distinct over the prior art cited by the Examiner and are in full compliance with the requirements of 35 U.S.C. § 112. Changes to the claims, as presented herein, are not made for the purpose of patentability within the meaning of 35 U.S.C. sections 101, 102, 103 or 112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicant is entitled.

Claims 1 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Liu et al. (Article entitled “Simulation and Implementation of US QAM-Based HDTV Channel Decoder”) in view of Paik et al. (U.S. Patent 5,311,546). The present invention according to independent claim 1 relates to a channel decoder for a digital broadcast receiver and comprises a synchronization byte detector. Specifically, the present invention has “a synchronization byte detector (1) for detecting synchronization bytes in a decoded transmission signal, characterized in that said synchronization byte detector (1) provides a synchronization signal indicating a start of frame for transport stream packets in the decoded transmission signal and a lock detected output signal indicating the lock-in of the receiver to one broadcast channel.” (Claim 1) The Examiner contends “Liu et al. disclose all the subject matter claimed, note figure 1, except their system’s Sync Extraction circuit does not provide an output signal indicating a lock-in of the

receiver to one broadcast channel...” (Office Action page 2) Accordingly, the Examiner relies on Paik’s “carrier lock signal” to meet the present invention’s “lock detected output signal” limitation. Paik’s “carrier lock signal is generated when a phase error of a filtered signal output from the adaptive equalizer reaches a threshold level.” (Column 3, Lines 40-42) Whereas, in the present invention the lock detected output signal indicates a lock-in on the start of the frames in the transport stream. In other words, the invention’s lock detected output signal is based on the detection of specific data within the transport stream, whereas Paik’s carrier lock signal is based on the phase error which is a property of the modulation method not of the data embedded within the signal. This is an important distinction because carrier lock signals are not very reliable and may indicate a false lock to a carrier, effectively slowing down or preventing lock-in of the signal. Applicant believes obtaining lock information from the packet synchronization stage as in the present invention, rather than the PLL lock detector as taught in Paik, is an inventive step since the blocks of carrier recovery and equalization reside in the digitized “analog” demodulation stages of a receiver, while packet synchronization is part of the decoding/data processing. Further, Applicant contends it is not apparent from the Examiner’s arguments how a process of feeding forward or feeding back the lock signal can be deduced from the teachings of Paik and Liu. Additionally, it is not apparent what information in Paik and Liu would suggest a combination of their teachings. Accordingly, for at least these reasons, Liu and Paik fail to anticipate the present invention and the rejected claims should now be allowed.

Claims 2-4 and 7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Liu and Paik in view of Lin et. al. (U.S. Patent Publication 2003/0058967). However, Lin is relied upon solely to meet various limitations in the dependent claims. Accordingly, for the reasons

discussed above, the combination of Liu, Paik and Lin fail to meet the limitations of the base claims and therefore do not obviate the rejected claims.

Applicant acknowledges with appreciation the indication by the Examiner that claims 5 and 6 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. However, in view of the arguments presented above, Applicant has decided not to amend these claims at this time.

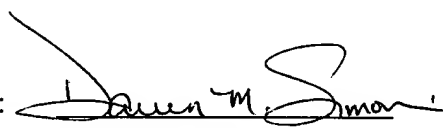
In view of the foregoing amendment and remarks, it is respectfully submitted that the application as now presented is in condition for allowance. Early and favorable reconsideration of the application are respectfully requested.

No additional fees are deemed to be required for the filing of this amendment, but if such are, the Examiner is hereby authorized to charge any insufficient fees or credit any overpayment associated with the above-identified application to Deposit Account No. 50-0320.

If any issues remain, or if the Examiner has any further suggestions, he/she is invited to call the undersigned at the telephone number provided below. The Examiner's consideration of this matter is gratefully acknowledged.

Respectfully submitted,
FROMMER LAWRENCE & HAUG LLP

By:

A handwritten signature in black ink, appearing to read "Darren M. Simon", written over a horizontal line.

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